IN THE SPECIFICATION

Please amend the paragraph at page 7, lines 6-15, as follows:

A reading unit 101 that optically reads a document focuses light reflected by lamp from the document on a light receiving element through a mirror and a lens. The light receiving element (as a charge-coupled device (CCD) in the embodiment) is mounted on a sensor board unit 102 (hereinafter, referred to as SBU). The CCD is a three linear CCD image sensor that converts image formation for the document into electrical signals corresponding to respective colors through red (R), green (G), and blue (B) filters. An A/D converter converts the signals output from the CCD image sensor into digital image data, and the SBU outputs image signals for the data together with synchronization signals.

Please amend the paragraph at page 7, line 16 through page 8, line 2, as follows:

The image signals output from the SBU are input into a unit 103 (an image data controller or a color data interface controller, hereinafter, referred to as CDIC) that integrally controls digital signal-bus interface, and shares the processing for the digital signals. The CDIC controls the whole transmission of image data between functional devices and a data bus. The CDIC performs data transfer among the SBU, a parallel bus, and a programmable arithmetic processing unit 105 (an image processor or image processing peripheral, hereinafter, referred to as IPP) that subjects the digitized image signals to image processing. The CDIC also performs communications between a system controller 113 that controls the whole system of the embodiment and a process controller 106 for the image data.

Please amend the paragraph at page 8, lines 3-16, as follows:

As for the digital image data for A-to-D converted R, G, and B, non-uniformity (signal degradation in a scanner system) of the data due to an optical system is corrected in

the SBU in this embodiment. The digital image data for R, G, and B of which non-uniformity has been corrected is input into an RGB line synchronization shift correcting unit 301 of a unit (a memory module, hereinafter, referred to as MEM) that integrally controls the SBU, CDIC, or access of digital signals to memory. The unit corrects a synchronization shift between the image data for colors. In this embodiment, since scanning is carried out by the CCD with three lines, synchronization shifts among 12 lines are produced in the colors. The SBU or CDIC in this embodiment generates a multinary luminance signal for a target pixel and a color determination signal indicating whether the target pixel is red based on the R, G, and B digital image data.

Please amend the paragraph at page 11, lines 15-23, as follows:

The color shift correcting unit 308 is the unit that performs the color shift correction 203 (see Fig. 2). If each of the patterns from LP1 to LP8 matches the reference pattern, the color shift correcting unit 308 determines that the target pixel included in a linear line pattern matching the reference pattern is color-shifted, and changes the color of the target pixel (e.g., red to black, black to red) according to a preset procedure. The image data of which color shift has been corrected is output from the color shift correcting unit 308 as two-color data forming two-color image of black and red.

Please amend the paragraph at page 11, line 24 through page 12 line 18, as follows:

Subsequently, the IPP separates the red digital image signal from the black digital image signal, subjects the signals to predetermined image processing, and stores them in the memory module 107 (hereinafter, referred to as MEM) ~~MEM~~ through the CDIC. A flow of the image data is explained below. The flow is shown in a case where the image data is stored in memory, and additional processing such as rotation of the data in an image

orientation or image synthesis required when the image is to be read. The data transferred from the IPP to the CDIC is sent from the CDIC to an image memory access controller 108 (IMAC) through a parallel bus. The IMAC performs access controls of the image data to the MEM, expands data for printing of an external PC (information processing terminal), and compresses and decompresses the image data for making effective used of the memory under the control of the system controller. The data transferred to the IMAC is compressed, stored in the MEM, and the stored data is read as required. The read data is decompressed to be restored to the original image data, and this data is returned from the IMAC to the CDIC through the parallel bus. The data transferred from the CDIC to the IPP is subjected to image quality processing and is pulse-controlled in a video data controller (VDC), and an image forming unit forms a reproduced image on a transfer paper.

Please amend the paragraph at page 13, line 25 through page 14 line 5, as follows:

A facsimile transmission function is performed by subjecting read image data to image processing in the IPP and transferring the image data to a facsimile control unit 109 (hereinafter, referred to as FCU) through the CDIC and the parallel bus. The FCU converts the data to data for a communication network and transmits the data to a public network 110 (hereinafter, referred to as PN) as facsimile data.

Please amend the paragraph at page 14, lines 6-11, as follows:

Through facsimile reception, line data from the PN is converted to image data at the FCU, and transferred to the IPP through the parallel bus and the CDIC. In this case, the image data is not subjected to any particular image processing, but dots are re-arranged and pulses are controlled at the VDC 111 to form a reproduced image on a transfer paper in the image forming unit 112.

Please amend the paragraph at page 14, line 12 through page 15 line 3, as follows:

The system controller 113 and the process controller 106 perform control for allocation of the reading unit, the image forming unit, and using right of parallel bus to jobs under the situations in which a plurality of jobs, for example, a copying function, a facsimile transmission/reception function, and a printer output function operate in parallel with each other. The process controller controls the flow of the image data, and the system controller controls the whole system and manages startup of each resource. Any of the functions of the multifunction peripheral is selected through an operation panel 114 (Ope. Pane) to set contents of processing for a copying function, a facsimile function, or the like. The system controller and the process controller mutually perform communications through the parallel bus, the CDIC, and a serial bus. The CDIC converts data format for data interface between the parallel bus and the serial bus. The light receiving element in the embodiment is the three linear image sensor of R, G, and B, but two linear image sensor of R and G may be used in an apparatus for reproduction of the data in two colors of red and black.